REMARKS

Favorable reconsideration and allowance of this application are requested.

1. Discussion of Amendments

Independent claims 1 and 7 have been amended so as to clarify that the polyamide oligomer has a lower melting point than the polyamide polymer. Support for such an amendment can be found in the original application at page 4, line 30 to page 5, line 4.

Claim 8 has been amended so as to address the 35 USC §101 rejection thereof. Thus, as amended claim 8 is directed toward a molded part comprising the polyamide compound of claim 7.

Claim 3 has been amended so as to insert the claim dependency inadvertently omitted therefrom in the Preliminary Amendment filed June 9, 2005.

Therefore, following entry of this amendment claims 1-8 will remain pending in this application.

2. Response to Double Patenting Rejections

A Terminal Disclaimer is being filed concurrently herewith so as to address the double patenting rejections advanced on the basis of USSN 10/538,637 (now USP 7,358,285) and USSN 10/557,210. Withdrawal of the double patenting rejection is therefore in order.

3. Response to 35 USC §101 Rejection

The amended to claim 8 is believed to moot the rejection advanced thereagainst under 35 USC §101.

4. Response to 35 USC §103(a) Rejections

Claims 1-7 attracted a rejection under 35 USC §103(a) as allegedly being unpatentable over a number of references including Koning et al or Gilmer et al in view of Nakahashi et al, Sakai et al, Martens et al '865, Kasowski et al, Cosstick et al, Oka et al or Martens et al '802. Applicants emphatically disagree.

The objects of the present invention are to provide a polyamide compound which shows improved flame retardant properties and/or improved color compared to known compounds (page 2, lines 19-24). This objective is achieved through the claimed combination of polyamide polymer and oligomers and flame retardants. The unexpected technical effects produced are provided in the examples (Tables I, II and IV). Significantly, the polyamide oligomer that is employed has a ***lower melting point*** as compared to the polyamide polymer.

Applicants note at the outset that the secondary references to Martens et al '419, Kasowski et al and Cosstick et al related to halogen free flame retardants have been previously cited in combination with Koning et al. in co-pending application 10/538,637 which has now matured as USP 7,358,285. To reiterate some of the arguments therein, applicants note that none of the cited references cited herein either individually or in any reasonable combination do not disclose or suggest the claimed invention, nor do they address the problems that are targeted by the claimed invention.

Koning simply discloses high molecular weight polyamides and low molecular weight polyamides with the addition of flame retardants as shown in column 3, line 51. Koning also refers to Japanese reference JP-A-5214246. According to Koning, the Japanese reference describes compositions comprising 100 parts by weight of a polyamide polymer and 0.001 - 10 parts by weight of a specific polyamide oligomer. Koning mentions as one of the drawbacks of the Japanese reference the insufficient retention of mechanical properties after addition of a polyamide oligomer, apart from the

difficult preparation thereof, and the lack of commercial availability. Koning therefore teaches that the problem of mechanical property retention of the Japanese reference can be solved by using a specific selection of polyamide oligomers, i.e., polyamide oligomers having a melting temperature ***higher than*** the temperature of the polyamide polymer (see claim 1 of Koning). Koning does not mention anything about the specific problems relating to the triazine flame retardants disclosed in the Japanese reference. Instead, flame retardants are generally mentioned in Koning merely as examples of ***optional*** components of the composition. Koning does not mention any details about the types of flame retardants, the amounts that can be used, or their effects on any of the components in any combination. Thus, there is no teaching, suggestion or motivation in Koning to modify its disclosures with any of the secondary references to arrive at the claimed invention.

Indeed, Koning teaches away from the claimed invention or at least in another direction than the claimed invention because Koning teaches one skilled in the art that the problem with mechanical property retention is solved by using a specific selection of polyamide oligomers having melting temperatures higher than the temperatures of the polyamide polymers. As further evidence that Koning teaches those skilled in the art to go in a different direction, the polyamide oligomers of the claimed invention have melting points that are even lower than that of a polyamide polymer which is contrary to the teachings of Koning.

The improved results of the claimed invention are shown in Tables I and II of the present application. This evidence of unexpected and superior results further demonstrates the non-obviousness of the claimed invention. And, as noted above, these superior results are achieved with a polyamide oligomer having a melting point lower than that of a polyamide polymer -- in contrast to the teachings of Koning -- the primary reference. The secondary references do not teach otherwise, and modifying

Koning to eliminate Koning's temperature requirement would defeat the purpose of the primary reference -- which is not permitted in an obviousness analysis.

Thus, the combination of the secondary references with Koning et al to reject the claims under 35 USC §103(a) is inappropriate and must be withdrawn.

The rejection based on Gilmer et al as a primary reference with the secondary references is likewise inappropriate. In this regard, Gilmer et al. relates to a process for producing a nanocomposite using an oligomer resin precursor. The object of Gilmer et al is directed at a process for the processing of clay particles and polymers, such as polyesters and polyamides, to process a nanocomposite having a high inherent viscosity, improved barrier properties and good thermal stability (paragraph 0018 in Gilmer et al). This is achieved through preparation of layered clay based polymeric nanocomposite, in which layered clay platelets are dispensed in an oligomeric polyamide resin. A high molecular weight polyamide is added to increase the composite molecular weight of the nanocomposite to the desired level (paragraphs 50 to 52, Gilmer et al.).

The examiner asserts that Gilmer et al. discloses all of the features of the present invention, except the specification of the flame retardants. The applicant respectfully disagrees with such an assessment. In particular, the examiner states that examples 17 to 23 in Gilmer et al. depict the weight ratio of the polyamide oligomer of the present invention. However, the % weight of polyamide oligomer in examples 17 to 20 (Gilmer et al.) is at least 50 weight % relative to the total weight of polyamide, in contrast to 0.1-30 weight % polyamide oligomer relative to the total weight of polyamide of the present invention is employed.

Examples 21 to 23 in Gilmer et al. relate to a formation of a nanocomposite using a polyamide oligomer which under goes a chain extension process, in which the molecular weight of the polyamide component increased from 8,000 g/mol to 18,000

g/mol (example 21). Therefore, none of the examples in Gilmer et at. discloses a polyamide oligomer in the molecular weight range and the % weight range as provided in the amended claims 1 and 7 of the present invention.

Therefore, to arrive at the solution as claimed in the present application, in addition to the specified flame retardant, the person skilled in the art would also need to be directed to polyamide wt. % range of 0.1-30 weight % polyamide oligomer relative to the total weight of polyamide. However there is no direction in Gilmer et al. or any of the secondary references to modify the polyamide oligomer content to that of the present invention. In summary, there is no reason why a person skilled in the art would have a reasonable success of choosing a flame retardant composition from any of the secondary references and combining the teachings of Gilmer et al to arrive at the claimed invention. Gilmer et al. is related to the specialized field of nanotechnology and a person would not expect to achieve improved flame retardant and/or color by modifying Gilmer et al. in such an improper way to reach the solution of the present invention.

Withdrawal of the 35 USC §103(a) rejection based on these reasons also is in order.

5. Fee Authorization

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: /Bryan H. Davidson/
Bryan H. Davidson
Reg. No. 30,251

BHD:dlb
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100